REMARKS

Claims 83-91 have been rejected under 35 U.S.C. § 112, second paragraph as being indefinite for few minor informalities. Claim 83 has been amended to recite that the interface layer has a reactive component deficit that is smaller than the reactive component deficit of the first layer. Claim 85 has been essentially amended to recite that the second layer deposited after it has reached a thickness of d_1 has the reactive component deficit that is greater than the reactive component deficit of the first layer. Support for this amendment is set forth generally in the specification at paragraphs [0017]-[0019]. Accordingly, applicant respectfully requests that this rejection be withdrawn.

Claims 55-74, 78 and 80-91 have been rejected under 35 U.S.C. § 102(b) as being allegedly anticipated by U.S. Patent No. 6,217,720 to Sullivan et al. (hereinafter "Sullivan"). Claims 75-77 and 79 have been rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as allegedly being unpatentable over Sullivan. Applicant respectfully traverses these rejections.

A rejection based on 35 U.S.C. §102 requires that the cited reference disclose each and every element covered by the claim. *Electro Medical Systems S.A. v. Cooper Life Sciences Inc.*, 32 U.S.P.Q.2d 1017, 1019 (Fed. Cir. 1994); *Lewmar Marine Inc. v. Barient Inc.*, 3 U.S.P.Q.2d 1766, 1767-68 (Fed. Cir. 1987), *cert. denied*, 484 U.S. 1007 (1988); *Verdegaal Bros., Inc. v. Union Oil Co.*, 814 F.2d 628, 631, 2 U.S.P.Q.2D 1051, 1053 (Fed. Cir.), *cert. denied*, 484 U.S. 827 (1987). The Federal Circuit has mandated that 35 U.S.C. § 102 requires no less than "complete anticipation ... [a]nticipation requires the presence in a single prior art disclosure of all elements of a claimed invention arranged as in the claim." *Connell v. Sears, Roebuck & Co.*, 772 F.2d 1542, 1548, 220 U.S.P.Q. 193,

198 (Fed. Cir. 1983); *See also*, *Electro Medical Systems*, 32 U.S.P.Q. 2d at 1019; *Verdegaal Bros.*, 814 F.2d at 631.

Although Sullivan describes a method of depositing multilayer coating on a substrate using reactive sputtering, contrary to the Examiner's assertion, Sullivan fails to teach or suggest a method for producing one or more coating on a moving substrate using a combination of reactive sputtering deposition with a subsequent plasma treatment, as required in claims 55-91. That is, Sullivan fails to teach the two step process claimed in the present invention. A reference silent as to the claimed limitation cannot possible teach the claimed invention, as incorrectly asserted by the Examiner. It is well known that the prior must to be judged based on a full and fair consideration of what that art teaches, not by using applicant's invention as a blueprint for gathering various bits and modifying the pieces in an attempt to reconstruct applicant's invention.

In the current office action, the Examiner states that "the claims do not require a subsequent plasma treatment following reactive sputtering." But, contrary to the Examiner's assertion, independent claim 56 previously recited that the structure and/or stoichiometry of the coating deposited on a substrate by reactive sputtering is modified by plasma treatment. Independent claim 56 (and similarly independent claims 55 and 83) have been amended to recite the following:

> "reactive sputter depositing, with a delivery of said reactive component, said coating on said substrate in a spatial area of said sputtering apparatus, said coating being of a predetermined coating thickness and having an optical loss below a predetermined minimum;
>
> . . .
>
> modifying a structure and/or stoichiometry of said coating on said substrate by a plasma treatment by said plasma source while supplying a predetermined amount of said reactive component to reduce an optical loss in said coating. (emphasis added)

In fact, paragraph [0015] of the specification clearly states that the claimed invention permits an increase of the coating rate because "the subsequent plasma treatment can oxidize thicker coatings to the stoichiometric oxide in less time. . . . subsequent plasma treatment permits a relative fast preparation of coatings with low optical losses." Even the Examiner has essentially admitted that Sullivan merely "discloses that deposition power and oxygen flow must be rapidly adjusted to maintain a desired stoichiometry of the coating." (Office Action, paragraph 4, lines 7-9). As noted herein, it is the subsequent plasma treatment that modifies the stoichiometry of the coating on the substrate.

"To imbue one of ordinary skill in the art with knowledge of the present invention, when no prior art reference or references of record convey or suggest that knowledge, is to fall victim of the insidious effect of hindsight syndrome, wherein that which only the inventor taught is used against the teacher." *W.L. Gore & Assoc. v. Garlock, Inc.*, 721 F.2d 1540, 1553 (Fed. Cir. 1983). Applicant respectfully submits that the Examiner cannot use hindsight gleaned from the present invention to modify the clear teaching of the prior art reference to render claims unpatentable. The prior must to be judged based on a full and fair consideration of what that art teaches, not by using Applicant's invention as a blueprint for gathering various bits and modifying the pieces in an attempt to reconstruct Applicant's invention.

Moreover, applicant respectfully notes that the Examiner's position untenable in light of recent Federal Circuit decision: "Because the hallmark of anticipation is prior invention, the prior art reference — in order to anticipate under 35 U.S.C. § 102 — must not only disclose all elements of the claim within the four corners of the document, but must also disclose those elements 'arranged as in the claim.'" *Net MoneyIN, Inc. v. Verisgn, Inc.*, 545 F.3d 1359 (Fed. Cir. 2008). Accordingly, contrary to the Examiner's assertion,

Sullivan does not anticipate nor render obvious pending claims 55-91 of the claimed invention.

Additionally, Sullivan fails to teach or suggest reactive deposition of a coating with a given stoichiometric deficit of the second constituent, as required in claim 55. In fact, as admitted by the Examiner, Sullivan merely describes adjusting the deposition power and oxygen flow to maintain the desired stoichiometry of the coating. (See Office Action at page 7). However, Sullivan does not teach or suggest a coating with given stoichiometric deficit of the second constituent. In fact, applicant's carefully reading of Sullivan could find any mention of the term "deficit," let alone "stoichiometric deficit" of the second constituent. The Examiner cannot misconstrue the plain meaning of the claim limitation to render the claims unpatentable.

Hence, contrary to the Examiner's assertion, Sullivan does not anticipate or render obvious claims 55-91 because Sullivan fails to teach all of the claim limitations of the present invention. Therefore, Sullivan is not an anticipatory reference to the present invention and, additionally, the Examiner has failed to establish a *prima facie* case of obviousness.

Moreover, contrary to the Examiner's assertion, Sullivan does not teach or suggest monitoring the coating and adjusting the optical properties of the coating after the plasma treatment, as required in claims 59 and 60. As noted herein, Sullivan is completely silent as to the plasma treatment. A reference silent as to the claimed limitation cannot possible teach the claimed invention, as incorrectly asserted by the Examiner.

Of course to establish a *prima facie* case of obviousness, three basic criteria must be met. First there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be

reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q. 2d 1438 (Fed. Cir. 1991); MPEP 2143.

Here, as noted herein, the Examiner has failed to establish a *prima facie* case of obviousness because Sullivan fails to teach or suggest a method of producing one or more coating on a moving substrate using a combination of reactive sputtering deposition with a subsequent plasma treatment, as required in pending claims 55-91. As admitted by the Examiner, Sullivan merely describes, at best, adjusting the oxygen flow and deposition power to maintain a desired stoichiometry of the coating.

Furthermore, as to the dependent claims, applicant incorporates herein all of its arguments from prior amendment filed on March 18, 2009.

On the basis of the above remarks, reconsideration and allowance of all of the pending claims 55-91 are respectfully requested.

Applicant is submitting PTO form 2038 to cover the fee associated with the accompanying Request for Continued Examination. Also, if any additional fee is due, please charge our Deposit Account No. 50-0624, under Order No. RPP 201 US (10505883) from which the undersigned is authorized to draw.

Respectfully submitted,

By

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